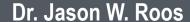


#### **COMMAND BRIEF**



Joint Program Executive Officer for Chemical, Biological, Radiological and Nuclear Defense



#### PROTECTING THE JOINT FORCE











#### **OUR MISSION**

Protect the Joint Force from weapons of mass destruction by generating affordable capabilities.



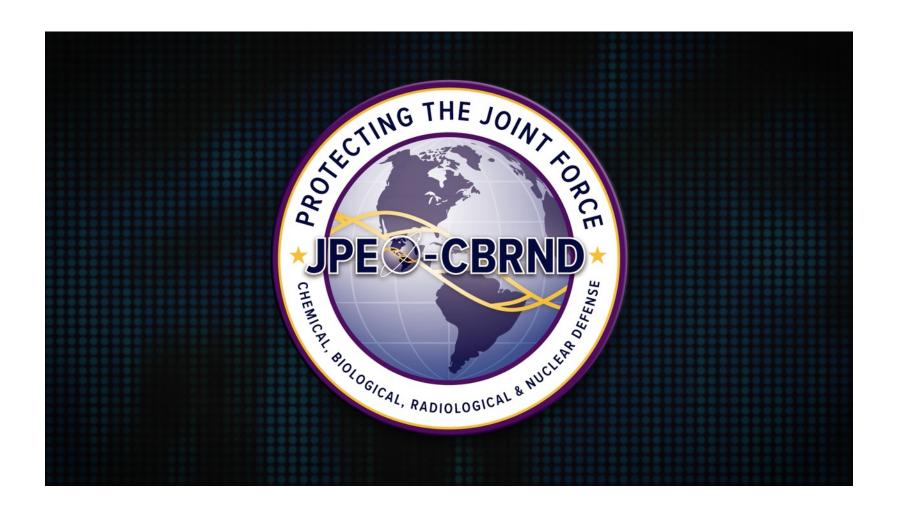
#### **OUR VISION**

A resilient Joint Force enabled to fight and win unencumbered by a chemical, biological, radiological, or nuclear environment; championed by innovative, agile, results-oriented acquisition professionals.

## JOINT PROGRAM EXECUTIVE OFFICE FOR CHEMICAL, BIOLOGICAL, RADIOLOGICAL AND NUCLEAR DEFENSE (JPEO-CBRND)



Who we are and where we are headed



# Department of Defense

## Chemical Biological Defense Program (CBDP)

#### NATIONAL POLICIES AND GUIDANCE:

- National Security Strategy
- ❖ National Military Strategy to Combat Weapons of Mass Destruction
- ❖ National Strategy for Homeland Security
- ❖ National Strategy to Combat Weapons of Mass Destruction
- Strategy for Homeland Defense and Civil Support
- ❖ National Strategy for Counterterrorism
- ❖ National Strategy for Countering Biological Threats
- ❖ National Strategy for Biological Surveillance

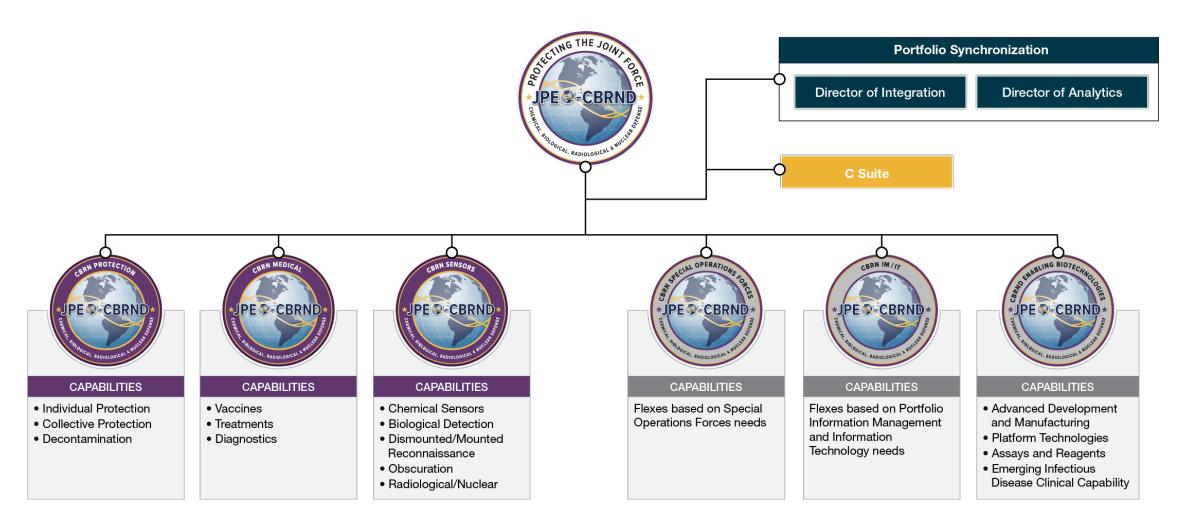




#### **JPEO-CBRND**

#### Organization





#### **DEPARTMENT OF DEFENSE**

**Chemical Biological Defense Program (CBDP)** 





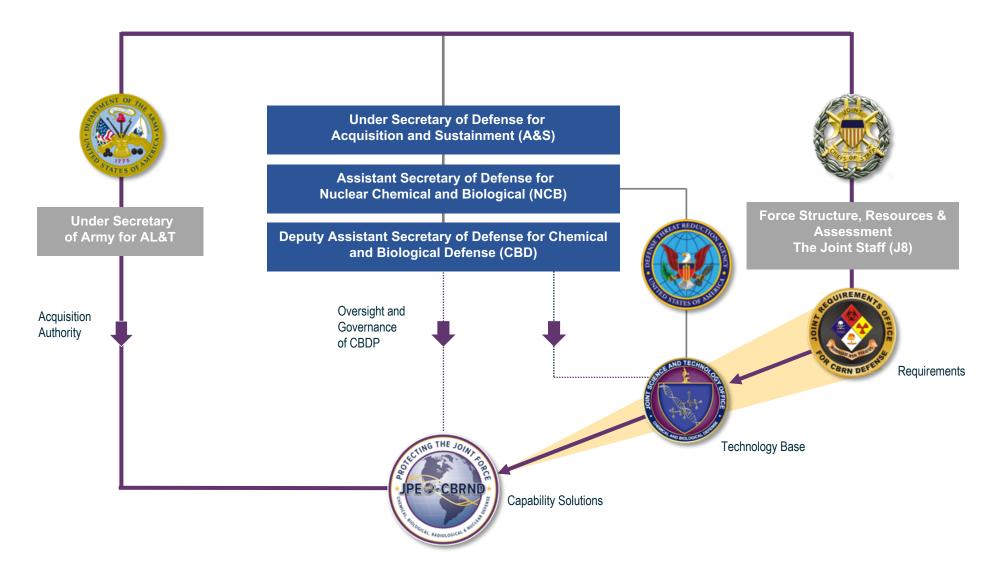




#### POSITION/ROLE OF JPEO-CBRND

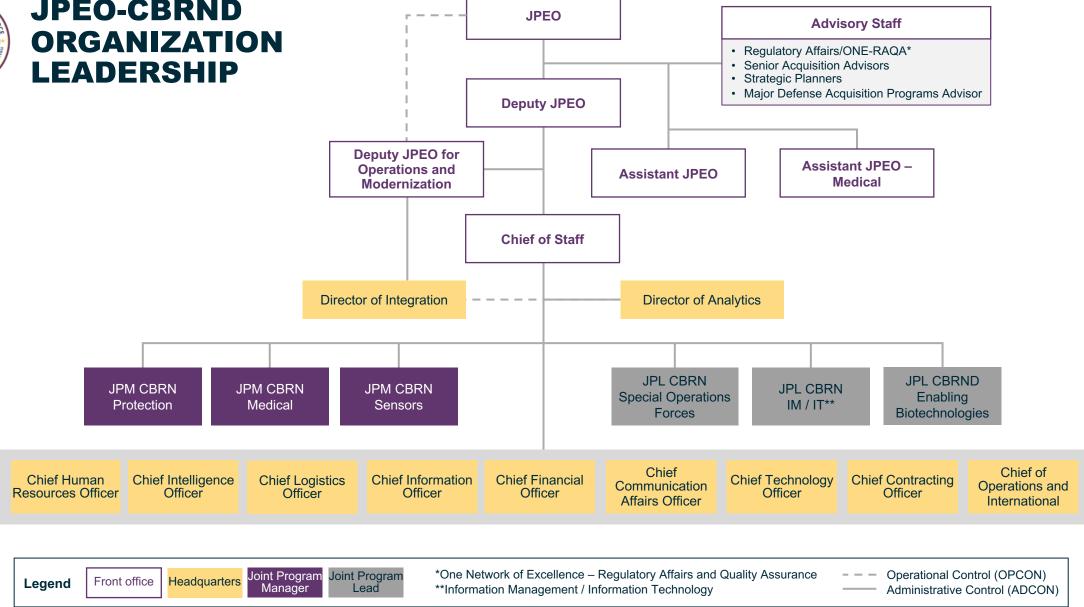
#### Within the DoD CBDP







Command Brief 12 October 2021



UNCLASSIFIED



#### **PROTECT**



#### •

Initial layer of protection

MEDICAL

**PROPHYLAXIS** 

- Vaccination
- Pre-treatment

#### PPE, COLLECTIVE PROTECTION

Reduction of primary and secondary exposure to CBRN threats

- Suits and masks
- Filtration
- Tents

#### **UNDERSTAND**



#### EARLY WARNING

Enable commander's operational decision making

- Data fusion
- Network sensors
- Communication
- Detectors

#### **MITIGATE**



#### DIAGNOSTICS

Lower echelon rapid diagnostics to determine treatment and reduce further exposure

- Point of need
- Laboratory and mobile
- Reconnaissance

#### THERAPEUTICS/ DECONTAMINATION

Post exposure prophylaxis adminstered upon agent exposure

- Treatments
- Personnel and materiel decontamination

JNCLASSIFIED

#### WE FACE A COMPLEX THREAT ENVIRONMENT















#### **FUTURE CAPABILITIES**





- **PROTECTION**
- Next generation protective ensemble
- Non-restrictive respiratory and ocular protection
- Tactical disablement
- Filtration technologies
- Integrated contamination mitigation
- Coatings and barriers



- MEDICAL
- One treatment, many threats
- Rapid medical countermeasures response
- Genomic sequencing
- Pre-symptomatic diagnostics
- Advanced Manufacturing



**SENSORS** 

- Robotics and autonomous systems
- Decision support tools
- Machine learning, artificial intelligence
- Space and intelligence, reconnaissance, surveillance
- Threat agnostic detection and identification
- Modernized radiological/nuclear detection and identification
- Integrated Early Warning

#### **ENTRY POINTS TO ENGAGE**



### GOVERNMENT AND INDUSTRY ENGAGEMENTS

- Industry Days
- Conferences
- Office Calls
- Chemical Biological Defense Acquisition Initiatives Forum
- NBC Industry Group

POC: PUBLIC AFFAIRS OFFICE

**EMAIL:** USARMY.APG.DOD-JPEO-CBRND.

MBX.JPEO-CBD-PUBLIC-AFFAIRS-

OFFICE@MAIL.MIL

PHONE: 410-436-9000



#### TECHNOLOGY AND INNOVATIONS

- Spark
- Early Discoveries
- Accelerator for Innovative Minds
- Cooperative Research and Development Agreement

**POC:** DAVE RESTIONE

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PHONE: 410-417-4566

### OTHER TRANSACTION AUTHORITY (OTA)

- Medical CBRN Defense
   Consortium (MCDC) OTA RDTE
- Combating Weapons of Mass Destruction (CWMD) OTA – RDTE

POC: BARRY G. SAYER

EMAIL: BARRY.G.SAYER.CIV@MAIL.MIL

**PHONE:** 717-404-2650 **WEB:** www.medcbrn.org www.cwmdconsortium.org

#### **CONTRACTS**

- JE-OPETS Contract Support Personnel
- JE-RDAP Development, Procurement, and Sustainment
- JE-CLASS Logistics
- Stand Alone Contracts

POCS:

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#### JPEOCBRND.OSD.MIL/work-with-us

#### JPEO-CBRND STRATEGIC GOALS



#### **ACQUISITION EXCELLENCE**

The JPEO-CBRND will be an exemplar PEO for agile and adaptive acquisition and will continue to be the go-to organization for accelerated delivery of CBRND/CWMD capabilities.

#### TRANSFORMATIONAL CAPABILITIES

The JPEO-CBRND will reset the Joint Force by 2030 by integrating technological advances into a suite of modernized CBRND capabilities that enable warfighter operations and situational understanding unencumbered by a CBRN environment.

#### WORKPLACE OF CHOICE

The JPEO-CBRND will be a safe, respectful, and engaging workplace environment that prioritizes work-life balance and maximizes opportunities for professional growth and learning for every member of the workforce.

#### THINKING BIG TOGETHER









"Never tell people how to do things.
Tell them what to do and they will surprise
you with their ingenuity."

-George S. Patton, U.S. Army General

#### JPEO-CBRND PROTECTION PORTFOLIO

#### **Today and Tomorrow**

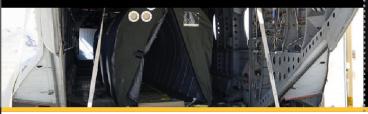


#### ► Chemical Biological Protection Shelter (CBPS)

- ► Collectively Protected Field Hospital (CPFH)
- ► Joint Expeditionary Collective Protection (JECP)
- ► Alternative Footwear Solutions (AFS)
- ► Integrated Footwear System (IFS)
- ► Joint Protective Aircrew Ensemble (JPACE)
- ▶ Joint Service Aircrew Mask Rotary Wing
- ▶ Joint Service Aircrew Mask for Strategic Aircraft
- ▶ JSLIST Block 2 Glove Upgrade Non-Flame Resistant (JB2GU nFR) variant
- ▶ Joint Service Aircrew Mask Tactical Aircraft (JSAM-TA)
- ▶ Joint Service Lightweight Integrated Suit Technology (JSLIST)
- ► M50/M51 Joint Service General Purpose Mask (JSGPM)
- ► M53A1 Mask

- ► CBRN Covers Coatings and Protective Overlays (C3PO)
- ► Contamination Indicator Decontamination Assurance System (CIDAS) - Nerve
- ▶ Joint General Purpose Decontaminant for Hardened Military Equipment (JGPD-HME)
- ► Joint Service Equipment Wipe (JSEW)
- ► M12A1 Decontamination Apparatus
- ► M26 Joint Service Transportable Decontamination System - Small Scale (JSTDS-SS)
- ► Reactive Skin Decontamination Lotion (RSDL)

#### COLLECTIVE



#### **INDIVIDUAL**

- ► Contaminated Human Remains System/ **Contaminated Human Remains Transfer Case** (CHRS/CHRT)
- ► Filter Improvements (Guard Bed for M98, M93/M59 Parts EMI Upgrade, M48A1 Redesign, etc)
- ► Next Generation Collective Protection for Ships and Buildings

- ► Advanced System for Protection and Integrated Reduction of Encumbrances (ASPIRE) (FY25)
- ► Ground Mask MWO (FY24)
- ► Uniform Integrated Protection Ensemble (UIPE) Family of Systems:
  - UIPE General Purpose
  - UIPE Air
  - UIPE Glove

#### **▶** DECONTAMINATION



- ► Contamination Indicator Decontamination Assurance System (CIDAS) - Blister
- ▶ Joint Biological Aircraft Decontamination System (JBADS)
- ▶ Next Generation Personnel Decontamination
- ► Tactical Contamination Mitigation System (TCMS)
- ► Service Equipment Decontamination System (SEDS)
- ► Wide Area Decontamination System (WADS)

#### JPEO-CBRND MEDICAL PORTFOLIO

#### **Today and Tomorrow**



# CURREN

► Anthrax Vaccine (AVA)

- ► Anti-Ebola mAb
- Nucleic Acid Launched mAb Countermeasures
- ► Polyclonal Rapid Response Platform
- ► Smallpox Vaccine (SPX VAC)
- ► Virus like Particle Platform
- ► Vero Cell Platform
- ► Antidote Treatment Nerve Agent Autoinjector (ATNAA)
- ► Convulsant Antidote for Nerve Agents (CANA)
- ► Soman Nerve Agent Pretreatment Pyridostigmine (SNAPP)
- ► Single-Use Atropine Autoinjector

- ► Next Generation Diagnostic System (NGDS)
- ▶ NGDS Sentinel & Food and Water Environmental Detection Panels

#### **CAPABILITY:**

- ► Dedicated DoD Biomanufacturing Network
- ► Special Immunization Program

# PROPHYLAXIS

#### **THERAPEUTICS**

- Anti-botulinum Neurotoxin A/B Monoclonal Antibodies (BOT mAbs)
- ▶ Nucleic Acid Launched mAb Countermeasures
- Plague Monoclonal Antibodies (PLG mAbs)
- ► Smallpox Antiviral Post Exposure Prophylaxis (SPX AV PEP)
- ➤ Vaccine Acceleration by Modular Progression (VAMP) (FY22)\*
- ➤ Vaccine Storage and Stability Testing (VSST)

- ▶ 10 in 2 Interagency Antibody Challenge (FY23)\*
- ► Alternate Autoinjector (AUTOINJ)
- ► Advanced Anticonvulsant System (AAS)
- ► Antiviral Therapeutic (AV TX)
- Countering Emerging Threats Rapid Acquisition and Investigation of Drugs for Repurposing (CET RAIDR)
- ► Improved Nerve Agent Treatment System Centrally Acting (INATS CA)
- ▶ Phage Therapy
- ► Rapid Opioid Countermeasure System (ROCS)



- ► Modernization Medical (MOD MED)
- ▶ NGDS 2 Man Portable Diagnostic System (NGDS 2 MPDS)
- NGDS 2 Chemical Diagnostics (NGDS 2 CHEM DX)

# UTURE

#### CAPABILITY:

- Whole-of-government National Biomanufacturing Partnership
- ► Computational Acceleration of MCM Development

#### JPEO-CBRND SENSORS PORTFOLIO

#### **Today and Tomorrow**



# URRENT

#### ► Enhanced Maritime Biological Detection (EMBD)

- ▶ Joint Biological Tactical Detection System (JBTDS)
- ▶ Joint Chemical Agent Detector (JCAD) M4A1
- ► Joint Personal Dosimeter-Individual (JPD-IND)
- ► Man-Portable Radiological Detection System (MRDS)
- ► Radiological Detection System (RDS)

- ► Analytical Laboratory System Modification (ALS MOD)
- ► Common Analytical Laboratory System (CALS)
- ► CBRN Sensors Integration on Robotic Platforms (CSIRP) (on UGV and UAV)
- ► Dismounted Reconnaissance Sets, Kits, and Outfits (DR SKO)
- ▶ NBCRV CBR Sampling and Detection Suite
- ► Portable Isotopic Neutron Spectroscopy (PINS)

- ► Limited Heat Strain Monitoring Capabilities
- ► Robotics, Autonomy & Artificial Intelligence (AI)
- ▶ Biosurveillance Portal
- ► Joint Warning and Reporting Network (JWARN)

#### **▶ POINT/STANDOFF**



- ► Aerosol Vapor Chemical Agent Detector (AVCAD)
- ► Multi-Phase Chemical Agent Detector (MPCAD)
- ► Compact Vapor Chemical Agent Detector (CVCAD)
- ► JCAD Solid Liquid Adapter (SLA)
- ▶ Nuclear, Biological, Chemical Reconnaissance Vehicle (NBCRV) Sensor Suite Upgrade (SSU)
- ► Proximate Chemical Agent Detector (PCAD)
- ► Reactive-Chemistry Orthogonal Surface and Environmental Threat Ticket Array (ROSETTA)

Sensors Modernization effort will manage technology refresh and modernization for all programs



#### **RECONNAISSANCE**

- ▶ CALS
- ► CSIRP (on UGV and UAV)
- ▶ DR SKO
- ▶ NBCRV SSU

#### ► INTEGRATED EARLY WARNING



- ▶ Biological Defense Innovation Program (BDIP) (FY23)
- ► CBRN Support to Command & Control (CSC2) (FY22)
- IEW ECD is a integral part of CSC2
- Collaboration between JPM S and JPL IM/IT
- ▶ Wearable Monitors for Total Health Awareness (FY21)

#### JPEO-CBRND SPECIAL OPERATIONS FORCES PORTFOLIO

#### **Today and Tomorrow**



# CORREN

#### ► All Purpose-Personal Protective Ensemble (AP-PPE) Modernization

- ► Chemical-Biological Aircraft Survivability Barrier (CASB)
- ► CASCADE
- ► Modular Powered Air Purifying Respirator (MPAPR)
- ► Sub-Terranean Mission (SUB-T)
- ► Tactical Advanced Threat Protective Ensemble (TATPE)

- ► Enhanced Warfighter Augmented Training (EWAT)
- ► Gas Atmospheric Sample Processor (GASP)
- ► Gamma-Ray Analysis of Chemical Elements (GRACE)
- ► Joint Handheld Biological Agent Identifier (JHBI)
- ► Rapid Austere Environment Sample Preparation (RASP)
- ▶ Wintergreen

- ► Contaminated Casualty Containment Litter (C3L)
- Chemical Biological Aircraft Survivability Barrier (CASB)
- ► Chemical Biological-Ground Mobility Barrier (CB-GMB)
- ► Chemical Warfare Agent Device Packaging (CWA DP)
- ► Contaminated Waste Mitigation System (CWMS)
- ► Non-Standard Chemical Biological Aircraft Survivability Barrier (NS-CASB)

#### PROTECT









### MITIGATE



#### ► Assault Respirator (AR)

- Micro Powered Air Purifying Respirator (MICRO PAPR)
- ► Modular Self-Contained Breathing Apparatus (M-SCBA)
- ► Optimized CBRN Hydration System

### ► Carbide-Derived Carbon Solid Phase Micro Extraction (CDC-SPME)

- ► Hyperspectral Imaging Unmanned Aircraft System (HIS UAS)
- ► Lightweight Flame Photometric Detector (LFPD)
- ► Low Temp Plasma Mas Spec (LTPMS)
- ► Next Generation Bio Sequencing (NGBS)
- ► Targeted Handheld Optical Recognition (THOR)
- ► Unmanned Ground and Aerial Vehicle Sensor Integration (UGV UAV)

- ► Clear Decon Slurry (CDS)
- ► Expedient Liquid Barrier System (ELBS)
- ► Forward Area Mobility Spray System (FAMS-S)
- ▶ Houndfish
- ► Paper on Demand (POD)
- ► Sensitive Equipment Decontamination System (SEDS)



### CONTACT

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Joint Program Executive Officer for Chemical, Biological, Radiological and Nuclear Defense

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**Alan Burket** | 443-655-8608 **Barry Sayer** | 717-404-2650

#### Online

jpeocbrnd.osd.mil













### **BACKUPS**

A GLIMPSE AT

#### INTEGRATED LAYERED DEFENSE



Intelligence (e.g., Human, Signals, etc.), Surveillance, Reconnaissance

#### PROTECTION

Vaccines, Pre-exposure Treatments



INTEGRATED EARLY WARNING
Sensors, Decision Support, Autonomy

#### PROTECTION

Individual, Collective



#### MITIGATION

t-exposure Treatments, De

INTEGRATED LAYERED DEFENSE

Maintains the Fighting Force





#### JPEO-CBRND ORGANIZATION LEADERSHIP



Acting DJPEO –
Assisted Acquisition/
Medical (COVID-19
Response)
Ms. Nicole Kilgore
Executive Assistant

Ms. Megan Danjou



JPEO
Dr. Jason Roos
Executive Assistant
Ms. Quneitra Quintero



Acting Deputy JPEO
Mr. Kyle Perkins
Executive Assistant
Ms. Heather Steinhilber



Chief of Staff
Mr. Gordon Graham
Executive Assistant

Ms. Heidi Kilburn



Senior Medical Regulatory

Advisor/Director

Ms. Carmen Maher
Executive Assistant
Ms. Shelley Hilgenberg

Assistant Chief of Staff Ms. Karen House





Director of Integration Mr. Paul Gietka



Assistant JPEO
Ms. Emma Wilson



Assistant JPEO – Medical COL Sean McMurry



Director of Analytics Mr. Wyatt Ulrich

#### Joint Project Managers (JPM)



JPM CBRN Protection
Ms. Deborah Olson
Executive Assistant

Ms. Brenda Lopez-Price



JPM CBRN Medical
COL Ryan Eckmeier

Executive Assistant
Ms. Jenn Scott



JPM CBRN Sensors
COL Robert Carter III

Executive Assistant Ms. Marjorie Giles (Margie)

#### Joint Project Leads (JPL)



JPL CBRN Special Operations Forces Mr. Michael Poe

Executive Assistant Ms. Tiffany Dickinson



JPL CBRN IM/IT Mr. Scott White

Executive Assistant Ms. Jeanette Benton



JPL CBRND Enabling Biotechnologies Mr. Bruce Goodwin (Acting)

Executive Assistant Ms. Shelley Hilgenberg